## PROJECT DESCRIPTION

#### I. GENERAL

This project involves the modification of two existing traffic control signals along Western Parkway in Charles County, Maryland. Western Parkway is considered to run in a north/south direction.

#### II. INTERSECTION OPERATION

A. Western Parkway and Weymouth Court/Target Store

The modification involves the addition of a west leg to the intersection, a northbound Western Parkway left-turn phase and a pedestrian phase across the south leg of the intersection.

The intersection is to operate in NEMA six (6) phase, full-traffic-actuated mode. There will be exclusive/permissive left turn phases for both movements of Western Pkwy. The Western Pkwy through movements will operate concurrently. A pedestrian phase with pushbutton actuation shall be provided across the south leg of Western Pkwy. The Target store entrance and Weymouth Court will also operate concurrently.

The existing base-mounted cabinet shall be maintained at this intersection.

#### B. St. Patricks Drive and Western Parkway

The modification involves the installation of a pedestrian phase across the east leg of the intersection with sidewalks and handicap ramps.

The intersection shall continue to operate in NEMA eight (8) phase, full-traffic-actuated mode with the St. Patricks Drive approaches running concurrently. Exclusive/permissive left turn phases shall remain for all approaches. A pedestrian phase with pushbutton actuation shall be provided across the east leg of St. Patricks Drive. The Western Parkway/ Mall Entrance approaches shall continue to run concurrently.

The existing base-mounted cabinet shall be maintained at this intersection.

#### III. SPECIAL NOTE

All field wiring to the existing controller cabinets shall be terminated to the appropriate controller cabinet connectors by the Contractor and labelled. All other controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two (72) hours in advance of intended work.

#### EQUIPMENT LIST

A. Approved S.H.A. equipment to be purchased by the Developer and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

prior to	installation.		
Quantity	Units	Specification Section	Description
2	EA	814	12 in., one-way, three section (R,Y,G) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, five section (R,Y,YA,G,GA) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
1	EA	814	12 in./8 in., one-way, five section (12 in. YA, GA/ 8 in. R,Y,G) adjustable traffic signal head with span wire mounting hardware and tunnel visors.
3	EA	814	12 in., one-way, two section (DW,W) symbolic pedestrian signal head with adjustable bracket for pole mounting and cutaway visors.
1	EA	814	12 in., one-way, two section (DW,W) symbolic pedestrian signal head having proper post top adapter for pedestal mounting and cutaway visors.
2	EA	817	Pedestrian pushbutton and R10-3C sign. (Note: Sign to read "PUSH BUTTON TO CROSS WESTERN PKWY".)
2	EA	817	Pedestrian pushbutton and R10-3C sign. (Note: Sign to read "PUSH BUTTON TO CROSS ST PATRICKS DR".)
5	SF	813	24 in. x 30 in. R 4-7 sign with ground mounting hardware.
10.5	SF	813	36 in. x 42 in. R 10-12 sign with span wire mounting hardware.
6.25	SF	813	30 in. x 30 in. R 10-11 b sign with span wire mounting hardware.
14	SF	813	Variable $\times$ 16 in. D 3-2 dual faced sign with span wire mounting hardware.
1.5	SF	813	9 in. x 12 in. pedestrian education sign with pole mounting hardware.

B. Equipment to be furnished and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
350	SF	104	Temporary Construction Signs.
10	DU	105	Flashing arrow panels.
1	CY	204	Test pit excavation.
100	LF	555	Furnish and installpreformed pavement marking tape, yellow (5 in. width for centerlines).
235	LF	555	Furnish and installpreformed pavement marking tape, white (5 in. width for lanelines).
440	LF	555	Furnish and install preformed pavement marking tape, white (12 in. width for crosswalks).
100	LF	555	Furnish and install preformed pavement marking tape, white (24 in. width for stoplines).

### EQUIPMENT LIST (CON'T.)

B. Equipment to be furnished and installed by the Contractor. All equipment in this list shall have catalog cuts submitted for approval prior to installation.

	4.4 **	Specification			Phase 1 & 5
Quantity	Units	Section	Description		1 & 5 Change
300	SF	610	Furnish and i	nstall 4 in. concrete sidewalk, mix No. 2.	Phase 1 & 6
					1 Change
60	LF	805	Remove curb	and gutter.	Phase 2 & 5 5 Change
30	LF	609	Furnish and li	nstall curb and gutter.	Phase 2 & 6
			i in property and the second		2 & 6 Change
0.5	CY	801	Furnish and i	nstall concrete foundation.	Phase 4 & 8
1	EA	804	Furnish and i	nstall ground rod, 3/4 in. diameter x 10' length.	4 & 8 Change
					Alt Phase 4
1	EA	818/821	Furnish and in base.	nstall 10 ft. breakaway pedestal pole with transformerr	Pedestrian Cle
			buse.		Alt 4 Change
2	EA	814	Install 12 in., c	one-way, three-section traffic signal head, span mount.	Flashing Operation
1	EA	814	Install 12 in., c	one-way, five-section traffic signalhead, span mount.	gewählitelengen er
1	EA	814	Install combine	ation 12/8 in., one-way, five-section traffic signal head, span mount.	
3	EA	814	Install 12 in., c	one-way, two-section pedestrian signal head, pole mount.	
1	EA	814	Install 12 in., ¢	one-way, two-section pedestrian signal head, pedestal mount.	
4	EA	817	Install pushbut	ton and sign.	
5	SF	813	Install ground	mounted signs.	
32.25	SF	813	Install overhed	ad mounted signs.	
2	EA	811	Furnish and in	nstall handhole, frame and cover.	
215	LF	815	Furnish and ir	nstall sawcut for signal loop detector.	
10	LF	805	Furnish and in	nstall 1 in, liquid tight flexible non-metallic conduit for loop detector sleeve	,
60	LF	805	Furnish and in	nstall 2 in, polyvinyl chloride [Schedule 40] electrical conduit - trenched.	
5	LF	805	Furnish and in	nstall 2 in. polyvinyl chloride [Schedule 40] electrical conduit - tunneled und	der sidewalk.
70	LF	805	Furnish and in	nstall 2 in. polyvinyl chloride [Schedule 80] electrical conduit - pushed in ro	oadway.
625	LF	810	Furnish and in	nstall loop detector wire (No. 14 A.W.G.) encased in flexible tubing.	

Furnish and install 2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).

Furnish and Install 2-conductor electrical cable (No. 14 A.W.G.).

Furnish and install 3-conductor electrical cable (No. 14 A.W.G.).

Furnish and Install 5-conductor electrical cable (No. 14 A.W.G.).

Furnish and install 7-conductor electrical cable (No. 14 A.W.G.).

Use existing plan on disk and as-built traffic control device.

Furnish and install wood sign support - 4 in. x 4 in.

Furnish and install stranded bare copper ground wire (No. 6 A.W.G.).

C. Equipment to be removed by the Contractor and delivered to: State Highway Administration, Office of Traffic and Safety, Signal Operations Warehouse, 7491 Connelley Drive, Hanover, Maryland 21076. Contact Mr. David Schwartz @ (410) 787-7667, forty-eight (48) hours in advance of returning equipment.

> Quantity Description

810

810

670

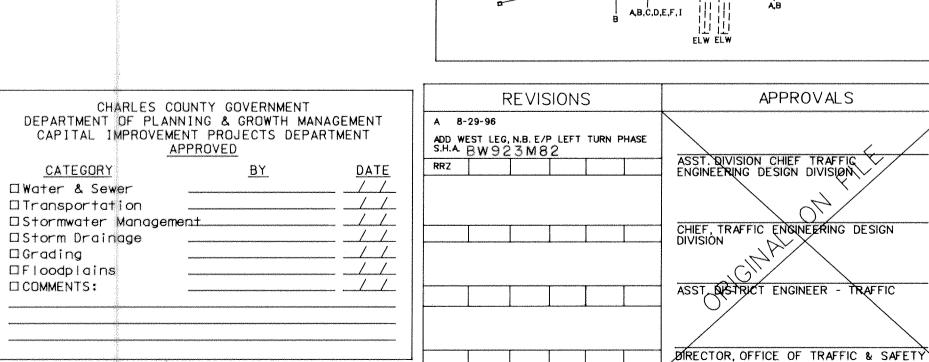
EΑ

EΑ

1 EA 12 in., three section traffic signal head, span wire mounted.

Relocate existing ground mounted sign.

Note: All equipment and/or materials to be removed by the Contractor but not listed above are to become the property of the Contractor.



ELWI

PHASE CHART WESTERN PKWY AND TARGET STORE/WEYMOUTH CT

# 

Phase 1 & 5	R G	R → G	R	R → G	R <b>→</b> G	R	R	R	R	R	DW	DW	
1 & 5 Change	т	O PHASE	1 & 6	OR 2 &	5		***************************************	- NONE WAS TO SHEET			DW	DW	
Phase 1 & 6	-G -G-	G G−	G	R	R	R	R	R	R	R	DW	DW	•
1 Change	-G -Y	G Y	G	R	R	R	R	R	R	R	DW	DW	
Phase 2 & 5	R	R	R	-G	-G—	G	R	R	R	R	DW	DW	-
5 Change	R	R	R	G →Y	-G 	G	R	R	R	R	DW	DW	<b>√</b>
Phase 2 & 6	G	G	G	G	G	G	R	R	R	R	DW	DW	4
2 & 6 Change	Y	Υ	Y	Y	Υ	Υ	R	R	R	R	DW	DW	
Phase 4 & 8	R	R	R	R	R	R	G	G	G	G	DW	DW	↑
4 & 8 Change	Y	Y	Υ	Υ	Υ	Υ	R	R	R	R	DW	DW	+
Alt Phase 4	R	R	R	R	R	R	G	G	G	G	WK	WK	91 +
Pedestrian Clearance	R	R	R	R	R	R	G	G	G	G	FL/DW	FL/DW	1:
Alt 4 Change	R	R	R	R	R	R	Υ	Y	Y	Y	DW	DW	ΙΥ + Ι
Flashing Operation	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	#

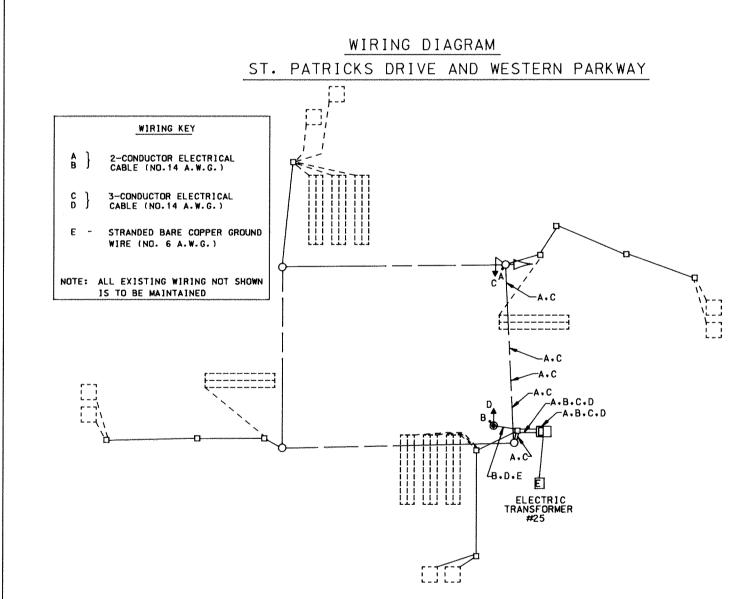
SHEET TOTAL FED. AID PROJ. NO. NO. SHEETS REGION NO. 20 20

PHASE CHART

ST. PATRICKS DRIVE AND WESTERN PARKWAY

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R Y G G	(R) (Y) (Y) (G) (G)	RYG	(R) (Y) (G) (G)	(R) >(G)	R Y G G	(R)>(G)	(P) (V) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	R YYY GG G	(R) (Y) (S)	(P) (Y) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	R Y G G	(R)	<b>师</b> 圣	<b>彤</b>

PHASE 1 & 5	R G -	R G -	R	R	R	8 -	R	R	R	R	R	R	R	DW	DW	1
1 & 5 CHANGE			PHASE 1	4 6 OR F	PHASE 2		L		4					DW	DW	Y
PHASE 1 & 6	<b>↓</b> 6 –	<b>4</b> 6 −	G	R	R	R	R	R	R	R	R	R	R	DW	DW	1
1 CHANGE	- ° -	<b>4</b> 9	G	R	R	R	R	R	R	R	R	R	R	DW	DW	F
PHASE 2 & 5	R	R	R	<b>+</b> 6 −	G	<b>4</b> 6 −	6	R	R	R	R	R	R	DW	DW	4
5 CHANGE	R	R	R	₽ g —	G	d g −	G	R	R	R	R	R	R	DW	DW	լ√
PHASE 2 & 6	G	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	-
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	$\vdash$
PHASE 3 & 7	R	R	R	R	R	R	R	R ← G —	R <b>4</b> -6 −	R	R ← G —	R	R	DW	DW	H
3 & 7 CHANGE		то	PHASE 3	& 8 OR F	MASE 4	4.7		•			<u> </u>	•••		DW	DW	1
PHASE 3 A .	R	R	R	R	R	R	R	R	R	R	<b>6</b> −	<b>6</b> − <b>6</b> −	G	DW	DW	I
3 CHANGE	R	R	R	R	R	R	R	R	R	R	<b>4</b> <sup>6</sup> −	<b>4</b> ° −	G	DW	DW	F
PHASE 4 & 7	R	R	R	R	R	R	R	€ G —	G -	G	R	R	R	DW	DW	П
7 CHANGE	R	R	R	R	R	R	R	G -	€ Y	Y	R	R	R	DW	DW	۲
PHASE 4 & 8	R	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	T
4 & 8 CHANGE	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	<b>₩</b>
PHASE & ALT	R	R	R	R	R	R	R	6	G	G	G	G	G	WK	WK	T.
PEDESTRIAN CLEARANCE	R	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	1
ALT 8 CHANGE	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	D₩	DW	1
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	4



A 2-Conductor Cable
(No. 14 A.W.G.)
(Aluminum Shielded) C 2-Conductor Cable D (No. 14 A.W.G.) E 3-Conductor Cable F Cable (No. 14 A.W.G.) G S-Conductor Electrical Cable (No. 14 A.W.G.) LWE B 7-Conductor Electrical Cable (No. 14 A.W.G.)

ELW — Existing Loop Detector Wire To Be Maintained

DATE:

WIRING DIAGRAM

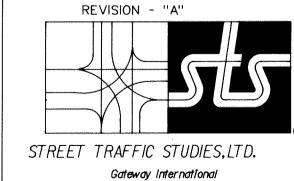
WESTERN PKWY AND TARGET STORE/WEYMOUTH CT

C,D,E,F,1,J,K

A.B.C.D.E.F.G. I

LW — Loop Detector Wire (No. 14 A.W.G.) in Flexible Tubing ES — Existing Underground Electrical Service By SMECO PGM # VR 96-0022

S.H.A. NO.



1302 Concourse Drive, Suite 104

20 of 20

Linthicum, Maryland 21090 (410) 859-3553 CTATE III CIII.IAV ADMINITOTDATION

	<b>S</b>	 CE OI	TRAFFIC & RING DESIGN	SAFETY
			(General	Information)
	_ DRAWN BY:	1.	WESTERN PARKWAY AT T	ARGET STORE/WEYMOUTH COURT
	DES. BY:		2. ST PATRICKS DRIV	/E AT WESTERN PARKWAY
negonali i manajane seno minini	CHK. BY:	COUNTY:	CHARLES	LOG MILE *

TS/STD. NO. SHEET NO. F.A.P. NO. 1. 36Ø7A-GI

2. 2564A